UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/920,554	08/01/2001	Graeme John Proudler	B-4240 618934-9	4232

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EXAMINER
DAVIS, ZACHARY A

ART UNIT	PAPER NUMBER
2137	

DATE MAILED: 07/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/920,554	PROUDLER, GRAEME JOHN
	Examiner	**Art Unit**	
	Zachary A. Davis	2137	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>05 May 2005</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>*1-29 and 31*</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>*1-29 and 31*</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   An amendment was received on 05 May 2005. Claims 1, 2, 13, 22-24, and 31

have been amended. Claim 30 has been canceled. No new claims have been added.

Claims 1-29 and 31 are currently pending in the present application.

Response to Arguments

2.   Applicant's arguments filed 05 May 2005 have been fully considered but they are

not persuasive.

Regarding the rejection of Claims 1-6, 14-26, and 29-31 under 35 U.S.C. 102(e)

as being anticipated by McNabb et al, US Patent 6289462, and the rejection of Claims

7-13, 27, and 28 under 35 U.S.C. 103(a) as being unpatentable over McNabb in view of

"HP Virtualvault Trusted Web-server Platform Product Brief", and specifically in

reference to independent Claim 1, Applicant argues that McNabb does not disclose the

claimed invention. The Examiner respectfully disagrees. Specifically, Applicant argues

that McNabb does not suggest using the sensitivity level as a trust level, where the trust

level indicates a degree of security with which a requested process must be performed.

However, the Examiner notes that McNabb does in fact define the sensitivity level as

"the security level of a request" (column 8, lines 33-37), which is therefore analogous to

the trust level of the present claims. Applicant further argues that McNabb teaches

away from using the sensitivity level as a trust level, based on the allegation that

McNabb discloses a configuration in which a process with a high sensitivity level can have a low trust level for each of the users of a role allowed to access a process since any other user of the role would be able to tamper with data or run the process. This is a spurious argument; the Examiner believes that although the cited portion of McNabb (column 18, lines 14-17) discloses that a set of user authorization privileges associated with a process may describe users in a role, the Examiner notes that the cited portion also states that the privileges may be described with respect to an individual user, in which case the alleged situation described by Applicant does not arise. Further, as stated above, the Examiner believes that the sensitivity level of McNabb is analogous to the trust level of the present claims.

Additionally, Applicant argues that McNabb also teaches away from a method where specified levels are established under control of a requestor. Applicant appears to draw a distinction between a level being assigned (per McNabb, column 16, lines 18-19) and a level being established. The Examiner first notes that McNabb does, in fact, disclose establishing a level for a process, object, or request when the object is created (see column 9, lines 1-4, where attributes are attached to a new object, file, or message; see also column 10, lines 12-15, where clearances, or sensitivity levels, are added for each process). Further, the Examiner notes that if a sensitivity level (or security or trust level) has been assigned, it has still been established. Applicant further appears to draw a distinction that the requestor is specifically a user, by stating that McNabb discloses a method where sensitivity levels are not under control of the user. However, the Examiner notes that although the term "requestor" encompasses the term

"user", it is not limited to that definition, and could, for example, refer to a process

requesting to use another process (see McNabb, column 9, lines 34-50). The Examiner

further notes that Applicant's specification states that the requestor *may* fall into a

category of user (page 4, lines 24-26 of the present specification).

Therefore, for the reasons detailed above, the Examiner maintains the rejection

as set forth below.

Specification

3.   The objection to the abstract is not withdrawn. Although the abstract has been

reduced to a single paragraph and less than 150 words, the Examiner reminds

Applicant that the form and legal phraseology often used in patent claims should be

avoided in the abstract.

4.   The objection to the specification for including hyperlinks is withdrawn in light of

the amendment to the specification.

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

applicant for patent, except that an international application filed under the treaty defined in section
351(a) shall have the effects for purposes of this subsection of an application filed in the United States
only if the international application designated the United States and was published under Article 21(2)
of such treaty in the English language.

6.   Claims 1-6, 14-26, 29, and 31 are rejected under 35 U.S.C. 102(e) as being

anticipated by McNabb et al, US Patent 6289462.

In reference to Claims 1 and 2, McNabb discloses a method including a

requester providing a specification of a service to be performed that establishes levels

of trust for processes in the service (see, for example, column 19, line 55-column 20,

line 2, where different processes are specified for different sensitivity levels) and a

computing platform executing the service according to the specification (see the Trusted

Server of Figure 1, and column 5, lines 20-29) and logging performance of the

processes and providing the log to the requestor (the audit trail described at column 7,

lines 28-33).

In reference to Claim 3, McNabb further discloses a protected computing

environment (see Figure 1).

In reference to Claims 4 and 23, McNabb further discloses measuring integrity of

the platform (see column 8, lines 40-45, regarding the trusted computer system).

In reference to Claim 5, McNabb further discloses a management process that

allocates the execution of processes and logging to environments associated with the

platform (see column 21, lines 34-55).

In reference to Claim 6, McNabb further discloses the management process

within the protected environment (see column 21, line 34-column 22, line 2).

In reference to Claim 14, McNabb further discloses that a process may be swapped between environments (see column 11, line 66-column 12, line 14).

In reference to Claims 15-20, McNabb further discloses logging input data, output data, and executed program instructions of a process (see column 7, lines 28-33; column 23, lines 26-35).

In reference to Claim 21, McNabb further discloses encrypting the logging data (column 23, lines 26-35, where the audit record is protected).

In reference to Claim 22, McNabb further discloses the specification of the service establishing logging parameters for the processes (column 23, lines 26-35).

In reference to Claim 24, McNabb discloses a platform including a protected computing environment (see Figure 1) and one or more compartments (column 17, lines 9-14), in which processes may be executed for a user in the compartments and the results of the processes may be returned to the user as trustworthy data from the protected environment (see, for example, column 6, lines 20-23), and where the platform further includes a management process that receives a service description including levels of trust for processes within the service (see, for example, column 19, line 55-column 20, line 2, where different processes are specified for different sensitivity levels) and that allocates the processes to the compartments (column 21, lines 34-55).

In reference to Claim 25, McNabb further discloses that the compartments may be located outside the protected environment (Figure 12; column 17, lines 57-61).

In reference to Claim 26, McNabb further discloses that the compartments may

be located inside the protected environment (Figure 12; column 17, lines 57-61).

In reference to Claim 29, McNabb further discloses measuring integrity of the

platform (see column 8, lines 40-45, regarding the trusted computer system).

In reference to Claim 31, McNabb further discloses the management process

within the protected environment (column 21, line 34-column 22, line 2).

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

8.   Claims 7-13, 27, and 28 are rejected under 35 U.S.C. 103(a) as being

unpatentable over McNabb in view of "HP Virtualvault Trusted Web-Server Platform

Product Brief", hereinafter "Virtualvault".

In reference to Claim 7, McNabb discloses everything as applied to Claim 5

above. McNabb further discloses the use of compartments (see, for example, column

17, lines 9-14). However, McNabb does not explicitly disclose that the compartment

contains a protected computing engine. Virtualvault discloses a computing platform that

includes the use of compartments, which include protected computing engines (see

page 3, "Data Partitioning Separates and Secures Files"). Therefore, it would have

been obvious to one of ordinary skill in the art at the time the invention was made to

modify the method of McNabb to include compartments containing protected computing

engines, in order to provide security for web servers (see Virtualvault, page 2,

"Virtualvault: The Answer to Secure Access").

In reference to Claim 8, Virtualvault further discloses a Java virtual machine (see

page 4, "A 'Vaulted' Java Virtual Machine").

In reference to Claim 9, McNabb further discloses that one or more

compartments are located in the protected environment (see Figure 12; column 17,

lines 57-61). Further, Virtualvault further discloses that one or more compartments are

located within the protected environment (see page 3, the INSIDE compartment).

In reference to Claim 10, McNabb further discloses that the computing engine is

prohibited from operating on input data if it is not permitted to do so (see column 8, lines

10-15 on Mandatory Access Control).

In reference to Claim 11, McNabb further discloses that input data and processes

are each provided with a type, and that the operation is prevented if the types do not

match (see column 8, lines 10-15 on Mandatory Access Control).

In reference to Claims 12 and 13, McNabb further discloses that the input data

may have an owner, and that the process may be required to inform the owner of the

use of the data or to obtain consent from the owner to use the data (see column 8, line

54-column 9, line 4).

In reference to Claims 27 and 28, McNabb discloses everything as applied to

Claim 24 above. However, McNabb does not explicitly disclose that the compartment

contains a protected computing engine, specifically a Java virtual machine. Virtualvault

discloses a computing platform that includes the use of compartments, which include

protected computing engines (see page 3, "Data Partitioning Separates and Secures

Files"). Virtualvault further specifically discloses a Java virtual machine (see page 4, "A

'Vaulted' Java Virtual Machine"). Therefore, it would have been obvious to one of

ordinary skill in the art at the time the invention was made to modify the method of

McNabb to include compartments containing protected computing engines, specifically

Java virtual machines, in order to provide security for web servers (see Virtualvault,

page 2, "Virtualvault: The Answer to Secure Access").

Conclusion

9.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zachary A. Davis whose telephone number is (571) 272-3870. The examiner can normally be reached on weekdays 8:30-6:00, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

zad

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